Applying the evidence: guidelines in primary care

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General practice has faced a tremendous workload challenge in meeting the National Service Framework targets. For the first time, the new General Medical Services (GMS) contract links practice remuneration to diagnosis and management of chronic diseases; in particular, it offers practices a significant financial incentive to undertake management of cardiovascular disease. However, in order to undertake the work and meet the targets, particularly those relating to management of blood pressure, serum lipids, and glucose, primary care teams will have to approach cardiovascular disease in a highly systematic manner. Much of the work is likely to fall upon practice nurses. While many in primary care have been reluctant in the past to invest in future health gain, the new GMS contract offers a good opportunity to change that way of thinking.

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The new General Medical Services (GMS) contract will require general practitioners to undertake a great deal more record keeping in respect of diagnosis and management of chronic disease.[1] The contract sets out a system of quality markers in a number of chronic disease areas. Achievement of these quality markers allows general practitioners to accumulate points, with the number of points collected linked to financial rewards. In cardiovascular disease, 121 clinical points are available for diagnosis and management of coronary heart disease, 31 points for stroke and transient ischaemic attack (TIA), 105 points for hypertension, and 99 points for diabetes.

The system has been developed by both clinicians and managers in order to reward both outcomes and service delivery, thus benefiting primary care clinicians in terms of job satisfaction and financially, and the government in terms of targets. In addition, service users should benefit. Importantly, from the primary care perspective, there is money in place to support it.

The contract offers £1.3 billion for quality payments. This is non-discretionary and will be additional to the global sum or maximum practice income guaranteed (MPIG). Therefore, the contract offers considerable additional money for those practices already undertaking this work as all activity will be converted to points. A maximum of 1050 points is available, and for 2005/6 this is expected to equate to about 20% of practice income, excluding dispensing. Around half the points (550) are clinical and relate to patient related activities that can be measured. In addition, there is a £9000 pump priming fund, a portion of which practices have already received. One point in 2004/5 will be worth £75, and a year later it will be worth £120. In relation to patients with coronary heart disease (CHD), measuring and managing blood pressure, smoking, and cholesterol will equate to a total of 242 clinical points, 44% of the total clinical points available.

In the past, primary care has been limited by insufficient funds to manage chronic diseases effectively. Since publication of the National Service Framework for CHD, primary care practitioners have had an enormous impact upon services with very little additional funding. The new GMS contract offers practices the incentive to employ staff to help achieve targets in a more systematic way than before. For a five partner practice with an average sized patient list, achievement of all cardiovascular disease points in 2006 will add £53 600 to total practice income, of which cholesterol measurement and treatment to target will account for £7800.

Data from the European action on secondary prevention by intervention to reduce events (EUROASPIRE) studies[2] show the scale of the work that needs to be done in the UK with respect to a wide range of cardiovascular risk factors (table 1). Overall, there has been little improvement with time, although rates of use for appropriate secondary preventive treatments—antiplatelet agents, β blockers, angiotensin converting enzyme (ACE) inhibitors and lipid lowering therapy—are increasing.

Furthermore, for many years doctors in the UK were told that there existed a ''rule of halves'' with respect to hypertension management. Recent data suggest that this is now the case with statin treatment. As with hypertension management, dose titration is important to achieve lipid targets with statins. Yet there is evidence that it does not happen at present; one recent study, which looked at prescription data from 76 000 patients in primary care, suggests that a ''rule of halves'' now applies to management of cholesterol in patients with CHD.[3] Based on data from the Health Survey for England, the authors suggest that nationally this treatment gap is likely to result in around 7150 new heart attacks each year (fig 1). Furthermore, prescription data show that 30–68% of prescriptions for the three most used statins are written for the lowest dose available, suggesting considerable potential for dose titration.[3]

Clearly there is a great opportunity to improve practice and the new GMS contract should go some way towards ensuring that primary care clinicians continue recording risk factors such as blood pressure and cholesterol measurements in a systematic way.

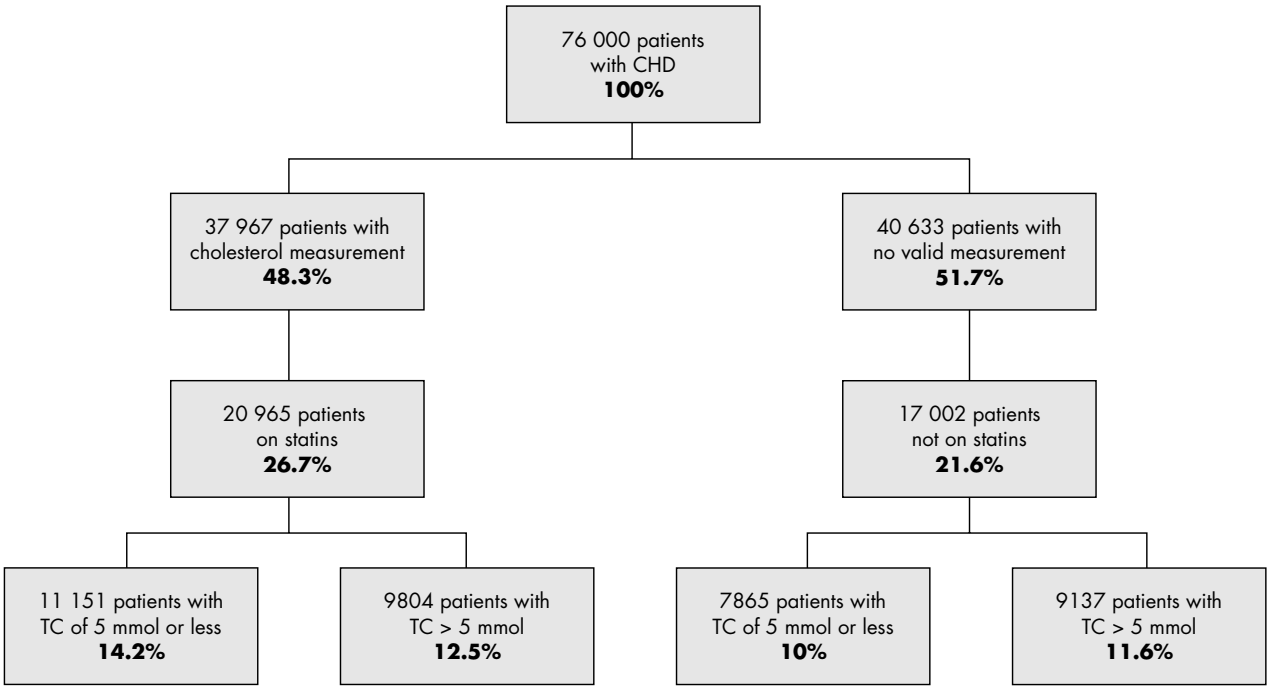

Figure 1 The ''rule of halves'' in relation to statin treatment. Adapted from de Lusignan *et al*,[3] with permission.

However, the general practice workload implication of meeting the National Service Framework targets for secondary prevention of CHD alone is considerable. In the average practice of 10 000 patients, about 904 items will need to be recorded and 2221 disease control measures will be needed, relating primarily to smoking cessation and control of blood pressure, cholesterol, and blood glucose.[4]

ACTIONS NEEDED IN PRIMARY CARE

In order to make a difference to patients' cardiovascular care, action needs to focus on providing appropriate lifestyle advice (diet, exercise, and smoking cessation), and prescribing appropriate preventive treatments (antiplatelet agents, anticoagulants, ACE inhibitors, β blockers, and drugs to control blood pressure, lipids, and glucose). In addition, it is important to screen those first degree relatives who may have hyperlipidaemia. This can be summed up by the alphabet approach shown in table 2. However, this is a huge academic exercise for many general practitioners because it requires extensive knowledge, specifically regarding how to use the drugs, how to follow up the patients, and which drug should be prescribed for which patient.

There are cost considerations, not least with respect to managing cholesterol. Many primary care trusts already have overspends, and expenditure on statins already represents 8% of total prescribing costs in England, a total of £552 million for 2002, having risen threefold since 1999.[5] However, a considerable body of evidence from clinical trials shows the benefit from using statins. For instance, in the lipid lowering arm of the Anglo-Scandinavian cardiac outcomes trial (ASCOT), giving atorvastatin 10 mg in addition to receiving excellent blood pressure control in high risk patients with so called normal cholesterol (< 6.5 mmol/l) resulted in a significant reduction in non-fatal myocardial infarction and fatal CHD (hazard ratio 0.64, 95% confidence interval (CI) 0.50 to 0.83; $p = 0.0005$) compared with placebo.[6]

Essentially, primary care trusts have to understand that it is necessary to invest for future health gain, a concept that has always been a problem in the National Health Service, particularly in primary care. However, the new GMS contract offers us a good opportunity to change that way of thinking.

The ASCOT study is an international study and in many centres is run by practice nurses. Practice nurses have been in the front line of health promotion work in primary care for several years now. In our practice, we set up a nurse led CHD

Table 1 Data from the EUROASPIRE studies[2] and from the author's practice suggest that UK clinicians still have a major job to do in reducing cardiovascular risk factors. (figures are percentages of patients not achieving targets and receiving medications)

	EUROASPIRE 1995/96	EUROASPIRE 1999/2000	EUROASPIRE 1999/2000 (UK arm, n=362)	Author's practice 2002
BP target	55	54	52	9
Cholesterol target	86	59	53	24
Current smoker	19	21	18	22
BMI >30	25	33	38	32
Antiplatelet	81	84	81	83
β Blocker	54	66	44	89
ACE inhibitor	29	43	27	34
Lipid treatment	32	63	69	83

ACE, angiotensin converting enzyme; BP, blood pressure; BMI, body mass index.

Table 2 The alphabet approach to tackling cardiovascular risk factors in primary care

A	Antiplatelet agents, ACE inhibitors, and Anticoagulants
B	Blood pressure lowering and β blockers
C	Cholesterol and Cigarettes
D	Don't forget to screen first Degree relatives and advise on Diet
E	Exercise
F	Follow up and rehabilitation
G	Glucose

clinic in 2001. At that time there were 450 patients on the CHD register, approximately 5% of the practice population. Practice audit following the introduction of the nurse led clinic demonstrated significant improvements in assessment of patients and in prescribing rates. There was also improvement in target achievement, but a smaller improvement than for assessment. This raises the issue of nurse prescribing: although the nurses did their jobs excellently they still had to approach the general practitioner to get a change in the patient's drug prescriptions. Nurse prescribing with dose titration in these patients would probably result in a considerable improvement in target attainment. For specialist nurses to take on such a role would require a rethinking of their current role; at present, many undertake tasks that could perhaps be performed by a health care assistant.

AN ACTION PLAN FOR PRIMARY CARE

It is clear, therefore, that to benefit from the new GMS contract and to improve patient care in line with government targets, primary care practitioners need to formulate an action plan[7 8] that centres around the concept of an atheroma clinic—whether patients suffer from coronary artery disease, cerebrovascular disease, or peripheral vascular disease, atherosclerosis is the underlying abnormality.[9]

The atheroma clinic will need to undertake systematic recording of risk factors and delivery of care for all patients with CHD, diabetes, stroke, TIA, and peripheral vascular disease. There should be a check list for these conditions, either in the patients' notes or on the computer. In addition, there is a role for opportunistic checks, and perhaps ''flags'' and reminders either on the computer or in the notes to ensure that opportunities are not missed to encourage people to stop smoking, and to check their lipids and blood pressure.

Staff training will be important to ensure that all members of the practice team, even including the practice reception staff, understand the importance of quality data on diagnosis, prescribing, and follow up. Arrangements should be made to ensure that locums are also familiar with the practice systems for recording data. There should be a foolproof recall system by which patients in the target groups are invited to attend. Experience suggests that around 70% of patients will respond to an invitation, so the effort will need to be directed at the remaining 30%. In addition, practices must be target focused and follow up those patients who do not achieve their targets.

Protocols should be used to define which patients are going to be screened, how the diagnosis is to be made, what the targets are, what assessments are to be done for the patients, what lifestyle advice is to be given, who gets referred to secondary care, and how patients are to be followed up. All of this has to be supported with prescribing policies that state which drugs are to be used first line and second line, in which patients and with what treatment targets, in order to ensure consistency. Ideally, nurses would have responsibility for titrating these drugs, as was the case in the ASCOT trial, in which the majority of patients hit a target blood pressure of less than 130/80 mm Hg. In addition, the prescribing policy should emphasise the need to monitor the use of drugs, and patient concordance.

Try to involve patients and their relatives in their own care. Wherever possible, patients should be encouraged to ''know their number,'' whether it relates to glucose, blood pressure, or lipids—the British Heart Foundation has developed a patient held record, which may be useful. Patients should be encouraged to undertake self monitoring. There are many opportunities to educate in practice, whether through referral to exercise clinics or sessions at local sports facilities, posters, leaflets, and even local websites.

However, it is important to remember that the primary care team does not have to undertake all of this by itself. Wherever possible, close links should be forged with local secondary care services, while the primary care team should be expanded to include and involve pharmacists, local sports centres, dietetics, and health visitors.

Excellent information technology systems must, however, underpin the entire enterprise, while regular audit is also essential.

The challenge for primary care is to realise the potential to prevent both first and recurrent events by translating all the good recommendations currently available into effective clinical care. There are a plethora of guidelines available to general practitioners, so each practice must select its guidelines carefully, bearing in mind that these are updated regularly. Already, the quality indicators in the new GMS contract are out of step with expert recommendations on blood pressure control and cholesterol targets. Recent European guidelines include a blood pressure target of 140/90 mm Hg for most patients, and lower for diabetics, while the cholesterol goal for those with established cardiovascular disease or diabetes is a total cholesterol of < 4.5 mmol/l and low density lipoprotein cholesterol of < 2.5 mmol/l.[10] Forthcoming guidelines from the Joint British Societies are likely to echo these new, lower targets. We in primary care will need to debate with our primary care trusts whether these are affordable, achievable, and sustainable.

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